



NASA Procedural Requirements

NPR 8580.1

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COMPLIANCE IS MANDATORY[Printable Format \(PDF\)](#)

Subject: Implementing The National Environmental Policy Act And Executive Order 12114**Responsible Office: Environmental Management Division**

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CHAPTER 6. Environmental Impact Statements

6.1 Environmental Impact Statements

6.1.1 An Environmental Impact Statement (EIS) is the most detailed and rigorous level of NEPA review provided for in the NEPA process (see Figure 3-3). An EIS is a disclosure document and a planning and decisionmaking tool. According to Council on Environmental Quality (CEQ) regulations 40 CFR §1502.1:

- a. An EIS is an action-forcing device to ensure that the policies and goals of NEPA are integrated into agency programs and actions.
- b. The purpose of an EIS is to "provide full and fair discussion of significant environmental impacts, and shall inform decisionmakers and the public of the reasonable alternatives which would avoid or minimize adverse impacts or enhance the quality of the human environment."
- c. An EIS should: (a) "focus on significant environmental issues and reasonable alternatives . . . (b) be concise, clear, and to the point, and (c) be supported by evidence that the agency has made the necessary environmental analyses."

6.1.2 NASA typically prepares four general types of EIS's: payload, institutional, programmatic, and legislative. Payload EIS's are mission-specific, and can be typified by the Galileo, Ulysses, and Cassini EIS's. An institutional EIS addresses major site-specific activities, major real property acquisitions, modifications, and new construction involving one or more NASA Centers or other locations. Programmatic EIS's address broad NASA actions or programs such as the Space Shuttle and the Sounding Rocket program, and are addressed in more detail in section 7.6. Legislative EIS's are not common, but they are required when NASA is involved in preparing major legislation. Legislative EIS's are addressed in more detail in section 7.4.

6.2 NASA Actions Requiring an EIS

6.2.1 As stated in CEQ regulations (40 CFR §1502.3), an EIS is required in every recommendation or report on "Proposals for legislation (see section 7.4), and other major Federal actions significantly affecting the quality of the human environment" (see section 3.7.3).

6.2.2 In accordance with CEQ regulations, NASA has designated certain actions that are expected to have a significant effect on the human environment as normally requiring an EIS. These actions include the development and operation of --

- a. New launch vehicles,
- b. Space vehicles likely to release substantial amounts of foreign materials into Earth's atmosphere or into space, and
- c. Nuclear systems, including nuclear reactors and thermal devices used for propulsion and/or power generation.

6.2.3 Disposal or acquisition of real property may require an EIS. In addition, a space mission involving the return to Earth of materials gathered from extraterrestrial sources may require an EIS.

6.2.4 Excluded from the presumption that an EIS is needed are nuclear devices having limited numbers of millicurie or less quantities of radioactive materials used as instrument detectors, and small radioisotope heaters used for local thermal control, provided they are properly contained and shielded. The International Atomic Energy Agency (IAEA) publication Safety Standard Series No. ST-1, Regulations for the Safe Transport of Radioactive Material, 1996 Edition, among other references, has been used in the past as guidance in making the decision as to whether an EIS should be prepared.

6.2.5 For the above actions, an environmental assessment (EA) is not required before starting an EIS. However, an EA may be prepared if the Sponsoring Entity feels that it would assist with planning and preparing the EIS.

6.3 Required Format and Content of an EIS

6.3.1 Format

NASA regulations specify that an EIS is to be prepared in the manner specified in CEQ regulations at 40 CFR Part 1502.

CEQ regulations 40 CFR §1502.10 outline the standard format of an EIS as illustrated in Figure 6-1. The overall format of an EIS is similar to that required for an EA with some additions. The content of each chapter of an EIS is discussed below.

6.3.2 Required Content

6.3.2.1 CEQ regulations (40 CFR §1502.2) provide important rules for preparing an EIS:

- a. An EIS shall be analytic rather than encyclopedic (focus is on the primarily significant issues and alternatives),
- b. "Impacts shall be discussed in proportion to their significance" (the discussion of nonsignificant issues should be brief, and only to the extent necessary to show why more study is not warranted), and
- c. "EIS's shall be kept concise, and shall be no longer than absolutely necessary" (i.e., length will vary with potential environmental problems and with project size).

Figure 6-1. Required Format of an Environmental Impact Statement

Cover Sheet-(see Figure 6-2)

EXECUTIVE SUMMARY

TABLE OF CONTENTS

LIST OF ABBREVIATIONS AND ACRONYMS

BRITISH V. METRIC MEASUREMENT CONVERSION TABLES

1 PURPOSE AND NEED FOR THE ACTION

2 DESCRIPTION AND COMPARISON OF ALTERNATIVES

- Description of proposed action and each reasonable alternative, including No-Action
- Brief description of alternatives not considered in detail; explain why
- Summary of environmental impacts of proposed action and reasonable alternatives, including No-Action

3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

- Appropriate-level descriptions of the physical, natural, and socioeconomic aspects of the environment that will be impacted, including, but not limited to, air quality, historical/cultural resources, threatened or endangered species and habitats, wetlands, floodplains, and other sensitive/protected resources

4 ENVIRONMENTAL CONSEQUENCES

- Impact analyses for the proposed action and reasonable alternatives, including No-Action
- Mandatory subsections
- Relationship Between Short-term Use of the Human Environment and the Maintenance and Enhancement of Long-term Productivity
- Irreversible and Irrecoverable Commitments of Resources

5 MITIGATION AND MONITORING (optional; can be incorporated into chapter 4 if appropriate)

6 REFERENCES

7 LIST OF PREPARERS

8 AGENCIES, ORGANIZATIONS, AND INDIVIDUALS CONSULTED

- Consulting Agencies
- Distribution List

9 INDEX

Appendices (Final EIS must have a Response to Comments chapter; it can be included as an appendix or in a separate volume.)

d. CEQ regulations (40 CFR §1502.7) state that normally an EIS should not exceed 150 pages, with EIS's for proposals of unusual scope and/or complexity normally not exceeding 300 pages.

e. An EIS shall state how the alternatives considered and the decisions based on the EIS will achieve the purposes of NEPA and other environmental statutes and policies.

f. The range of alternatives discussed in an EIS must encompass the alternatives from which the agency's ultimate decisionmaker can select (i.e., the decisionmaker cannot select an alternative outside the range discussed in the EIS). Even if an alternative is not within NASA's jurisdiction to implement, but it is reasonable, it should be evaluated.

g. Agencies cannot commit resources that would--

(1) have an adverse environmental impact, or

(2) prejudice the selection of alternatives before making a final decision (i.e., do not take actions or commit resources that would require adopting a particular alternative until the decision is made). CEQ regulations (40 CFR §1506.1) provide for limited exceptions to this rule as discussed in section 7.8 Interim Actions.

h. An EIS serves as the means of assessing the environmental impact of proposed actions, not to justify decisions already made.

i. CEQ regulations (40 CFR 1502.25(b)) state that a Draft EIS must "list all Federal permits, licenses, and other entitlements which must be obtained before implementing the proposal."

6.3.2.2 An EIS should be written in plain language, avoiding technical jargon as much as possible. Conclusory statements without factual backup analyses (e.g., the action will only minimally affect waterfowl) should be avoided, presenting quantitative data to the extent possible.

6.3.2.3 With respect to each major EIS chapter outlined in section 6.3.2, CEQ provides additional guidance in 40 CFR Part 1502. Refer also to the discussions in section 5.3.2 of parallel or similar EA chapters and chapter 8 of this NPR for additional general information pertaining to EIS content.

6.3.2.4 Cover Sheet

CEQ regulations (40 CFR §1502.11) outline the specific format and content of an EIS cover sheet. Figure 6-2 provides the format of NASA's required cover sheet.

6.3.2.5 Executive Summary

CEQ regulations (40 CFR §1502.12) describe the Executive Summary as an accurate summary of the entire document; it does not focus solely on one chapter or aspect. It is important that the summary stress the major findings presented in the EIS, the major areas of environmental controversy or concerns (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives). CEQ recommends that the Executive Summary not exceed 15 pages in length; NASA recommends it be less than 10 pages.

Figure 6-2. Required Cover Sheet for an Environmental Impact Statement

POPULAR NAME of PROPOSAL INCLUDES TYPE (e.g., DRAFT or FINAL)	
Lead Agency:	NASA, State name of Sponsoring Entity; name(s) of cooperating agency(ies) if appropriate
Point of Contact for Information:	Name, title, address, and phone number of NASA Point of Contact
Date:	Date of Issuance (recommend using month and year)

Abstract:

Succinct statement of proposed action; brief abstract of the EIS, stating proposed action, alternatives examined, and summary of key findings (the abstract may be printed on a separate page, if necessary).

6.3.2.6 Chapter 1-Purpose and Need for the Action

As noted earlier in section 5.3.2 for EA's, this chapter is one of the most important chapters of a NEPA document. CEQ regulations (40 CFR §1502.13) stress that this chapter should briefly describe the action the agency needs to take and what the goal of the action is. It needs to be carefully crafted so that the range of alternatives is neither arbitrarily narrowed to what the agency wants to do nor so broadly defined that the range of alternatives is essentially infinite and can never be analyzed. In developing the purpose and need, care should be exercised to avoid subdividing the action into smaller components for separate NEPA treatment leading to segmentation as discussed in section 3.8, which would weaken the NEPA process and leave it open to challenge.

6.3.2.7 Chapter 2-Description and Comparison of Alternatives

a. This is where the alternatives analysis discussed in section 3.7.5 is documented. Chapter 2 is often called the lynch pin chapter of an EIS. It clearly defines the alternatives, and highlights the differences in environmental impacts between the alternatives. According to 40 CFR §1502.14 of CEQ regulations, this EIS chapter has a dual purpose:

- (1) it contains a description of the proposed action and the range of reasonable alternatives (including the mandatory No-Action alternative) sufficient to permit an EIS reviewer to understand and to critically review the EIS and the bases underlying the major environmental issues addressed, and
- (2) it provides a comparative summary of the impacts (direct, indirect, and cumulative) of the proposed action and alternatives (including No-Action) that sharply defines the issues and provides the decisionmaker and the public a clear basis for choice among the alternatives.

b. CEQ regulations (40 CFR §1502.14) require this EIS chapter to include the following:

- (1) To the extent possible, comparisons should be made in quantitative terms. Rigorously examine and objectively evaluate all reasonable alternatives (reasonable means technically and economically feasible and available within the time frame of the action, see section 3.7.5).
- (2) Briefly discuss the reasons why certain alternatives were eliminated from detailed study.
- (3) Provide substantial treatment of each reasonable alternative to enable reviewers to compare their relative merits. A matrix of alternatives versus environmental category (e.g., air quality, water quality, and geology) can be valuable in presenting this comparison and is normally recommended.
- (4) "Include reasonable alternatives not within the jurisdiction of the lead agency" (i.e., if a reasonable alternative is not within NASA's jurisdiction to implement, it still must be evaluated).
- (5) "Include the No-Action alternative" (see sections 3.7.5 and 5.3.2).
- (6) "Identify the agency's preferred alternative or alternatives, if one or more exists, in the Draft EIS; identify the preferred alternative in the Final EIS unless prohibited by another law."
- (7) "Include appropriate mitigation measures not already included in the proposed action or alternatives."

6.3.2.8 Chapter 3-Description of the Affected Environment

CEQ regulations (40 CFR §1502.15) describe this chapter as a succinct description of the existing environment to be affected by the alternatives being considered (including the proposed action and No-Action alternatives). The amount of detail provided should be proportional to the significance of the impacts. Less important aspects can be summarized or referred to other studies or NEPA documents. Typical elements of the environment to be addressed are provided in sample environmental evaluation checklists in Appendix I.

6.3.2.9 Chapter 4-Environmental Consequences

a. As stated in (40 CFR §1502.16) of CEQ regulations, this chapter is the scientific and analytic chapter of the EIS, providing the basis for comparisons among alternatives (including the proposed action and the No-Action). It should address adverse and beneficial impacts of the alternatives and any adverse environmental effects that cannot be avoided if the proposal is implemented. Urban quality, historic and cultural resources, and design of the as-built environment should be addressed along with reuse and conservation potentials of the alternatives. As noted earlier in section 5.3.2, direct and indirect impacts as well as cumulative impacts and their significance need to be discussed.

b. Occasionally, information needed to evaluate a key environmental issue will not be available or has not yet evolved to a stage where it can be used. Instances such as these are subject to special treatment. See section 7.9 for a discussion of incomplete and unavailable information.

c. This chapter has two mandatory subsections:

- (1) The Relationship Between Short-Term Use of the Human Environment and the Maintenance and Enhancement of Long-Term Productivity. The short-term use subsection should address possible conflicts with the objectives of Federal, State, and local land use plans and policies or private party plans for the affected area. If Native American Indian tribal lands are to be affected, the tribe's land use policies and plans must also be taken into account.
- (2) Irreversible and Irretrievable Commitments of Resources that would result if the proposal were implemented. The

Irreversible and Irrecoverable Commitment of Resources subsection should address the use of nonrenewable energy resources, natural and depletable resources, and scarce materials and the conservation potential of the alternatives under evaluation, including associated mitigation measures.

d. Mitigation measures to reduce or avoid significant impacts, if not already an integral part of the alternatives (including the proposed action and No-Action), can also be addressed in this chapter or as a separate chapter of the EIS (chapter 5) if the measures are extensive, complex, or require extensive monitoring.

e. The last section of the consequences chapter shall include a brief discussion of permits, licenses and approvals required to be obtained before implementation of the action.

6.3.2.10 Chapter 5-Mitigation and Monitoring

If mitigation measures play a major role in avoiding or reducing substantial environmental impacts and are important to the decision regarding which alternative to choose, they should be afforded separate treatment in this chapter, particularly if the mitigation measures are extensive or complex (see also section 3.7.6). Monitoring the action and implementing the mitigation measures should also be addressed. The monitoring discussion should also address how successful implementation of mitigation will be measured and how modifications will be made, if required.

6.3.2.11 Chapter 6-References

a. Requirements for the list of references are addressed in section 5.3.2.7 and summarized here. All references cited in the EIS (except classified references and otherwise protected or proprietary materials; see section 7.3) must be listed.

b. Certain types of references (known as underlying documents) should be made publicly available or accessible.

c. CEQ requires that Federal agencies make the underlying documents and comments received on an EIS available to the public, "... pursuant to the provisions of the Freedom of Information Act (5 U.S.C. §552), without regard to the exclusion of interagency memoranda where such memoranda transmit comments of Federal agencies on the environmental impact of the proposed action" (40 CFR §1506.6(f)). The CEQ regulations do not provide any guidance as to where the underlying documents and/or comments are to be made available, except to point out that the materials, "... shall be provided to the public without charge to the extent practicable, or at a fee which is not more than the actual costs of reproducing copies to be sent to other Federal agencies" (40 CFR §1506.6(f)).

d. Underlying documents are considered to include only those documents that have been prepared specifically in support of the EIS preparation and analyses. Other official NEPA documents that are incorporated in whole or in part into the EIS may also constitute an underlying document. This definition does not include documents published in open literature and than can be obtained from publishers or public repositories. Underlying documents prepared by NASA (or a cooperating agency) can sometimes be included in the EIS as appendices.

e. When incorporation of underlying documents in the EIS is not feasible or practical, and subject to copyright concerns, it is recommended that copies of the underlying documents be compiled into an EIS library, and made available to the public for inspection at a minimum of two locations: the NASA Center or Component Facility where the action is based and NASA Headquarters (HQ). Other locations can be used based upon the local or national scope and level of public interest and controversy.

f. These underlying documents can be held in the public reading room or with a designated responsible party. The public reading room staff must be notified of the name and phone number of the point of contact to simplify accessing the references when requested by the public. It is required that underlying documents be accessible during the NEPA process, and it is recommended that they be maintained until the action is implemented. Where a document is cited as a reference and is not otherwise readily available, NASA must have a copy in its possession (or in the possession of its NEPA contractor) or be sure that it is available at a public repository. Attention must be paid to copyrighted materials. NASA cannot make copies of copyrighted material, then recopy it for distribution without first obtaining waivers or permission from the publisher and/or authors. Also, the Sponsoring Entity should satisfy itself that the referenced document contains the most current and best available information. In addition, telephone or other oral communications are not valid references unless documented contemporaneously or shortly thereafter, and the written record is provided to the participants.

6.3.2.12 Chapter 7-List of Preparers

CEQ regulations (40 CFR §1502.17) require that a list of preparers be included in the EIS. This list includes the name of all parties (including contact personnel) primarily responsible for preparing the EIS and for preparing significant background papers and particular analyses supporting the EIS. The list shall include the qualifications of each person (specifically expertise, experience, and professional disciplines. It is important to note that while EIS preparation may involve non-NASA personnel, such as third-party contractors, NASA, specifically the Sponsoring Entity retains authorship of and responsibility for the EIS.

6.3.2.13 Chapter 8-Agencies, Organizations, and Individuals Consulted

a. This chapter documents the extent to which NASA has ensured participation by other agencies, organizations, and the public in the NEPA process. Agencies are required by CEQ regulations (40 CFR §1501.7) and NASA regulations to provide the public, other agencies, and organizations the opportunity to provide input regarding environmental issues and concerns during EIS preparation. The Sponsoring Entity must provide the opportunity for this participation (see sections 3.5 and 6.4.3).

b. All official contacts with other Federal, State, or local agencies must be documented, along with any substantive inputs or information resulting from these contacts. This documentation becomes part of the administrative record.

c. For the Draft EIS, this chapter should contain a summary of the EIS scoping process, noting the extent of public and other interested party participation, and major environmental issues and concerns raised. For the Final EIS, a similar summary should be substituted addressing public review of the Draft EIS (e.g., describe number of Draft EIS's distributed; numbers of commentors and comments received, and principal topics addressed).

d. For the Draft EIS, chapter 8 shall contain a broad list of Federal agencies, including those having jurisdiction by law over the action and those with special expertise. It should also contain state, regional, and local agencies with authority over or interest in the affected area; national and any local organizations that would be expected to have an interest in the action (e.g., environmental groups); and individuals who have expressed interest in the action. This list must include agencies,

organizations, and individuals expressing interest or environmental concerns during the public scoping period. Do not list contacts made with other NASA entities or NASA contractors involved in the proposed action. It may be appropriate to list some people referred to in chapter 7, List of Preparers. All agencies, organizations, and individuals on such lists must be provided copies of the EIS when it is released to the public at both the Draft and Final EIS stages. It is not required that the recipients of informational or complimentary copies (e.g., copies sent to Senators or Members of the House of Representatives) be listed in this chapter of the EIS.

e. For the Final EIS, this list will be further augmented with those agencies, organizations, and individuals that provided comments on the Draft EIS or otherwise expressed interest in the action during that period.

f. It is recommended that essentially two lists be maintained: (1) a list of names for publication within the NEPA document and/or for public release (as described above) and (2) a second list for use solely within the NEPA project that contains the full name, address, and telephone number of all agency and organization points of contact, and interested individuals. Only the list generated under (1) in this paragraph would become part of the administrative record (see section 3.7.7). The list produced under (2) in this paragraph should be used solely for internal coordination.

6.3.2.14 Chapter 9-Index

An index is required by 40 CFR §1502.10(j) of CEQ regulations. The index should provide a quick reference source to all the major topics; environmental issues; descriptions of key components of the alternatives evaluated; major impacts of alternatives; environmental topics addressed (e.g., air, water quality, wastes, accidents); and analyses associated with other environmental review requirements.

6.3.2.15 Appendices

a. As noted in section 5.3.2 and in 40 CFR §1502.18 of CEQ regulations, appendices incorporated into an EIS should consist of underlying documents (i.e., materials prepared specifically for the EIS, not materials incorporated by reference from other documents). Furthermore, appendices should normally contain material that substantiates the EIS analyses and should be analytic and relevant to the decision that will be made. Appendices are usually bound into the EIS, or if voluminous, bound into another volume(s). Appendices can also be available upon request (i.e., not bound in the EIS). Appendices should be circulated with the EIS if they are likely to be of interest to more than a few reviewers, or they can be made available upon request (if they are not bound in the EIS).

b. The appendix entitled Response to Comments on the Draft EIS can be included as an appendix, or, if voluminous, in a separate volume, but must be circulated with the Final EIS. Comments (and associated responses) can be grouped by source (e.g., Federal, State, and local agencies, and individuals). While all comments received must be acknowledged, only comments on pertinent environmental issues need to be responded to. See Figure 8-2 for additional guidance on the Response to Comments appendix.

6.3.3 Editorial Suggestions

a. The following recommendations reflect NASA policy and will improve the NEPA process. The preparers of an EIS should--

(1) Write using plain language; a level the decisionmakers and the public can understand. Language should be nonjudgmental and objective. Jargon should be avoided to the maximum extent practicable, and where needed, should be defined.

(2) Use 12-point-type text using the most reasonable font size for graphics and tables.

(3) Use easy-to-follow graphics and tables to summarize data. Show correlation. Do not confuse the reader.

(4) Provide graphs that use the same axes and scales whenever possible.

(5) Provide maps and drawings that show all features needed to understand the issues. Avoid extraneous information. Use directional arrows and scale indicators.

(6) Provide all measurements in metric units with British system equivalents in parentheses except when (a) there is a regulatory standard that is only expressed in one system or (b) the numbers are in a table or figure where using both systems would create too much clutter or confusion. (A list of common metric and British system equivalents can be found in Appendix A of the NPG.)

(7) Determine early in the analytic process how numerical data will be reported (e.g., how many significant digits will be used, and how numbers will be rounded). Be sure all technical writers are using the determined convention.

(8) List all tables and figures in the Table of Contents.

(9) Provide an abbreviation and acronym section if warranted. Provide a glossary of technical terms when specialized meanings are used.

(10) Remember an EIS is a predecisional document. Consequently, the EIS should not inadvertently use language or suggest in any other way that a decision has been made.

6.4 EIS Process and Responsibilities

6.4.1 A flow chart of the EIS preparation process is provided in Figure 6-3.

6.4.2 Preparatory Steps

6.4.2.1 During the initial environmental evaluation of the proposal, the Sponsoring Entity and local EMO will formulate the purpose and need for the action and define the proposed action to accomplish NASA's goals. HQ/EMD must be consulted during this evaluation and will be an integral part of the entire EIS process.

6.4.2.2 After the purpose and need have been carefully defined, three essential planning and scoping activities are carried out by the Sponsoring Entity:

a. Conducting alternatives analysis in which the range of reasonable alternatives is determined (see section 3.7.5),

b. Determining other environmental review requirements applicable to the proposal (e.g., National Historic Preservation Act and Endangered Species Act) (see section 3.6), and

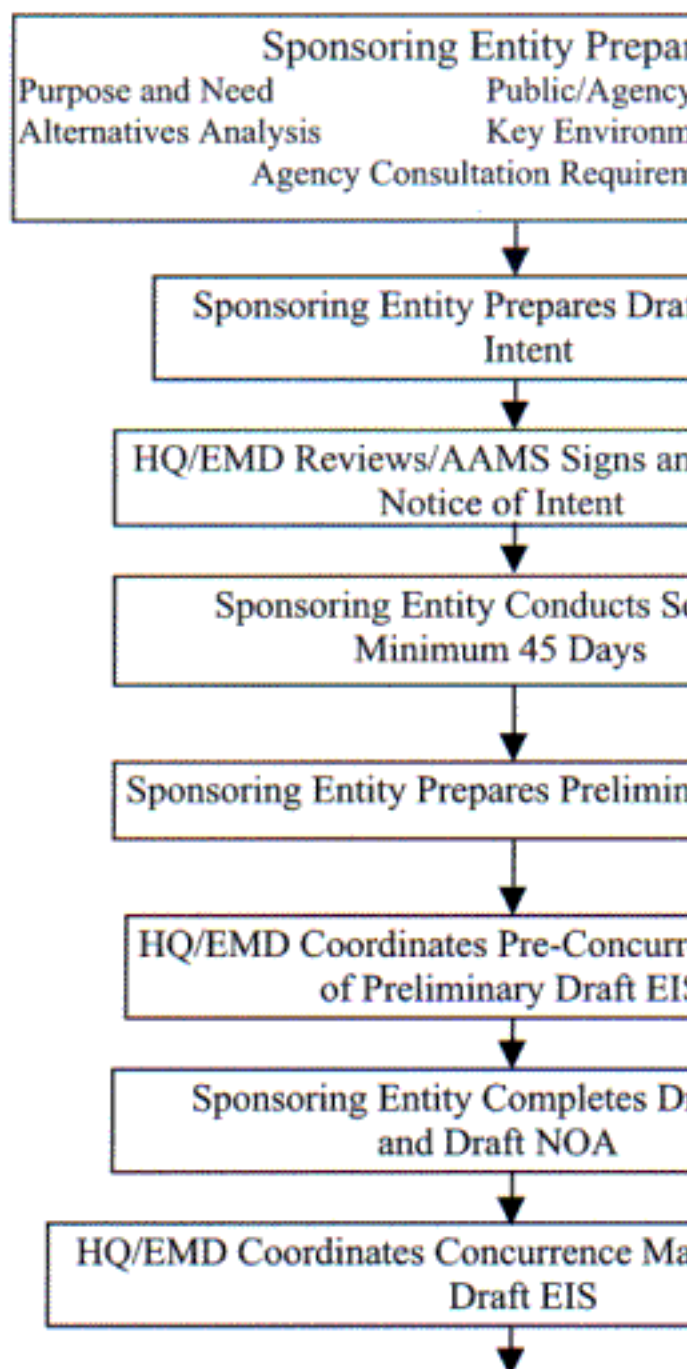
c. Identifying key environmental issues associated with the proposal and analyses needed.

6.4.2.3 The Sponsoring Entity is responsible for determining the need for a cooperating agency(s) to participate in preparing the EIS (see section 7.16.4) and developing a preliminary list of potentially interested agencies, organizations, and individuals (including affected Indian tribes) for use in mailing of the Notice of Intent (NOI). Public involvement measures to be implemented and public meetings, newsletters, press releases, and other types of outreach activities also need to be determined.

6.4.2.4 Depending upon the action and issues to be addressed, other organizations may have specific expertise or experience that would be valuable to EIS preparation, or other organizations may be affected by the outcome of the NEPA process. For example, the Public Affairs Office at a Center can bring their in-depth knowledge of local issues and affairs to the EIS preparation process, providing valuable assistance in dealing with local agencies and organizations. Participation by other NASA organizations should be evaluated early in the process and appropriate arrangements made to ensure that the process flows smoothly.

6.4.2.5 In evaluating the environmental issues to be addressed, the range of environmental categories to be considered includes, but is not limited to the following:

- a. Air quality and meteorology,
- b. Water resources,

Figure 6-3. Environmental Impact Sta

- c. Waste generation, treatment, transportation, and disposal,
- d. Geology, soils, and topography,
- e. Noise, sonic boom, and vibration,
- f. Toxic substances and hazardous materials,
- g. Biological resources and ecology,
- h. Radioactive materials and nonionizing radiation,
- i. Endangered and threatened species,
- j. Historical, cultural, and archaeological resources,
- k. Wetlands, floodplains, and prime or unique farmland,
- l. Land use,

- m. Socioeconomic factors (if related to impacts to natural or physical factors),
- n. Infrastructure,
- o. Accidents involving hazardous, toxic, or radioactive materials,
- p. Environmental justice,
- q. Pollution prevention,
- r. Public health and safety, and
- s. Stratospheric ozone depletion and global climatic change.

6.4.2.6 The HQ/EMD is available for consultation throughout these initial steps.

6.4.3 Preparing the NOI

6.4.3.1 The NOI is the first public document published in the EIS preparation process. The format and content are illustrated in Figure 6-4, while real-life examples are provided in Appendix J (see Figures J-2 and J-3). CEQ regulations (40 CFR §1501.7) outline the requirements an agency must fulfill in conducting the public scoping process. The NOI initiates compliance with these requirements. As noted in Figure 6-4, the NOI:

Figure 6-4. Format for the Notice of Intent



NOTICE (99-_____)1,2

National Environmental Policy Act: Title of the proposed action, project, mission, or program

AGENCY: National Aeronautics and Space Administration

ACTION: Notice of intent to prepare an environmental impact statement and conduct scoping³

SUMMARY: The National Aeronautics and Space Administration, in accordance with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et seq.), the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), and NASA's policy and procedures (14 CFR Part 1216; Subpart 1216.3), intends to prepare an EIS for _____.

DATES: Interested parties are invited to submit written comments to NASA by _____, 20XX, to ensure full consideration during the scoping process.

ADDRESSES: Comments should be submitted to: (name of responsible official at-address. Facsimile number and electronic mail address may also be given).

FOR FURTHER INFORMATION CONTACT: Name and telephone number of responsible official

SUPPLEMENTARY INFORMATION: Discuss:

1. Why action is needed (i.e., the need and purpose)
2. Description of the proposed action
3. Alternatives under consideration
4. List of significant environmental issues to be analyzed in depth in the Draft EIS
5. Description of the scoping process
6. Public meetings: location (City, County and State), dates, and times

¹Begins with the appropriate calendar year.

²AAMS provides code designation.

³Supplemental EIS's do not require scoping or the "DATES" block.

See Figures J-2 and J-3 in Appendix J for examples of NASA NOI's.

a. Invites participation of affected Federal, State, and local agencies; affected Indian tribes; and other interested individuals and groups, including those that might not be in agreement on environmental grounds. (Classified actions are an exception addressed in section 7.3.)

b. Tentatively identifies the scope and significant issues to be analyzed in depth in the EIS, identifying and eliminating from consideration issues that are not significant or have been covered in previous NEPA documents.

c. Indicates any other EA's or EIS's that are or will be prepared that are related to but not part of the scope of the present EIS.

d. Indicates the relationship between timing of EIS preparation and the agency's tentative planning and decisionmaking schedule.

e. Includes details of the agency's plan for soliciting public input (e.g., public scoping meetings, and written input).

6.4.3.2 Publishing the NOI signals the initial opportunity for the public to become involved in shaping the EIS. It invites interested agencies, organizations, and individuals to become involved by submitting comments and environmental concerns and issues to NASA for consideration in the EIS. The completed and approved NOI is published in (a) the Federal Register (this starts the clock for the official public scoping period); and (b) local newspapers of general circulation, as appropriate.

a. Responsibility for preparation of the draft NOI rests with the Sponsoring Entity in consultation with the local EMO. It is then transmitted to the HQ/EMD. A preliminary list of potentially interested agencies, organizations, and individuals must accompany the draft NOI.

b. The HQ/EMD will review and revise the draft NOI, as appropriate. The Sponsoring Entity will concur with agreed-upon revisions. The NOI will then be transmitted for concurrence by the Office of General Counsel and the Associate Administrator of the relevant Strategic Enterprise. The Associate Administrator for Management Systems (AAMS) will sign and publish the NOI in the Federal Register. The Sponsoring Entity will mail copies of the NOI to the list of potentially interested agencies, organizations, and individuals (see section 6.3.2). The Sponsoring Entity will be responsible for publishing notices in local newspapers of general circulation, as appropriate.

6.4.4 Public Scoping

6.4.4.1 The Sponsoring Entity is responsible for public scoping of the EIS. Public scoping is a required element of the EIS preparation process. Scoping is an early and open process for determining the array of issues to be addressed in the EIS and for identifying significant issues. The NOI specifically requests comments on the proposal, reasonable alternatives, and significant environmental issues from any and all interested parties.

6.4.4.2 Failure to provide adequate opportunity for agencies and interested parties to participate in EIS scoping undermines the whole NEPA process. It also hinders full and fair consideration of the environmental impacts of the proposed action and reasonable alternatives. The following items provide additional guidance for including public scoping in the EIS process.

a. The scoping period should encompass at least 45 calendar days from the date the NOI is published in the Federal Register or local newspaper, whichever is later (for complex or controversial actions, 60 days may be more appropriate).

b. If public scoping meetings will be held, the times, dates, and locations of the meetings must normally appear in the NOI; public meetings should not occur until 15 days after the NOI publication date. If the dates are not known at the time of NOI publication, an information update must be published indicating the public meeting dates and locations as soon as established.

c. The number of public scoping meetings to be held shall be determined by the Sponsoring Entity and local EMO. Factors that influence this decision include the complexity of the proposed action, level of public visibility or controversy, and the size of the area where impacts would be experienced.

d. All responses received from interested parties during the scoping period should be entered into a chronological log by date of receipt.

e. Original letters, facsimiles, electronic mail, and phone contact notes must be copied for working use, with the originals maintained in a separate file for the duration of the proposed project as part of the administrative record (see section 3.7.7).

f. All responses received must be evaluated against the issues and alternatives outlined in the NOI and preparatory analyses and deliberations (see section 6.3.2). The plan for the EIS should be modified or revised when the Sponsoring Entity determines that significant environmental concerns have been raised. All evaluations of comments received and their disposition (e.g., not pertinent; currently considered in the plan; new issue, needs to be incorporated) must be documented and entered into the administrative record. If a large number of comments are received or the pertinent comments are broad-ranging, a database or spreadsheet can be helpful in tracking how and where each pertinent comment will be addressed.

g. Interested parties may raise environmental issues and concerns after the designated scoping period closes; issues raised within 45 days before publication of the Draft EIS will be addressed as a response to comments in the Final EIS. All comments received must be evaluated for relevancy. If no new issues are raised that need to be addressed in the Draft EIS, document this result for the administrative record. If pertinent new information is provided that has a bearing on the significance of impacts or range of reasonable alternatives and it would cause a substantial change in the analyses or conclusions, it normally should be incorporated in the Draft EIS. This new information may require major redirection of the EIS and schedule. In cases where such redirection and substantial delay may be appropriate, the HQ/EMD must be consulted immediately to assist in balancing the new information with the tardiness of the commentator.

h. All respondents providing input or other expressions of interest during the scoping period must be added to the list of agencies, organizations, and individuals consulted.

6.4.4.3 The Sponsoring Entity is responsible for conducting the scoping period and evaluating and dispositioning of all comments. It is strongly recommended that a specific person, with a designated backup, be assigned responsibility for handling, copying, and archiving all comments received and overseeing the process of evaluating and tracking comments.

6.4.5 Preparing the Draft EIS

6.4.5.1 The Sponsoring Entity is responsible for preparing the preliminary Draft EIS. The preliminary Draft EIS normally proceeds through one or more internal reviews within the Sponsoring Entity/local EMO before it is ready for NASA concurrence review. It is recommended that resolution of internal review comments be conducted at a face-to-face meeting of the primary reviewers. This resolution method helps focus on comments that are pertinent to the technical and NEPA adequacy of the document and ultimately saves time in preparing the document because needed revisions can be agreed to at the meeting.

6.4.5.2 NASA regulations address the formal NASA reviews required before publication of an EIS. As the last step in the internal review process before submitting the proposed Draft EIS for formal NASA concurrence review, HQ/EMD will coordinate a preconcurrence review of the preliminary draft, which includes the Office of the General Counsel. This will help ensure that NEPA, legal, or outstanding substantive environmental issues are resolved before the EIS is submitted for formal NASA management concurrence review. The Sponsoring Entity should supply HQ/EMD with 10 copies of the EIS (or quantities as agreed upon) for review. All comments and recommendations (other than minor editorial ones) provided by HQ

offices reviewing EIS's must be addressed by the Sponsoring Entity. Resolution of comments may be accomplished by (a) amending the EIS to satisfy the HQ concerns and incorporating the recommendations or (b) mutually agreeing with the HQ commentor on an alternative approach to addressing the concern. Revisions are made by the Sponsoring Entity/local EMO and the document made ready for management concurrence review.

a. Before submitting the preliminary Draft EIS for NASA concurrence review, the Sponsoring Entity/EMO develops the list of senior management reviewers in consultation with the HQ/EMD and the Office of the General Counsel.

b. The Sponsoring Entity issues the covering memorandum that transmits the preliminary Draft EIS and provides copies to HQ/EMD for the NASA senior management concurrence reviewers. If the EIS is complex or controversial, a presentation by the Sponsoring Entity to the Program Management Council before concurrence review is recommended. (HQ/EMD is available for consultation, as needed.)

c. HQ/EMD will coordinate the management concurrence review. Concurrence comments from other HQ offices must be sent to HQ/EMD, which transmits the comments to the Sponsoring Entity.

d. Allow 2 to 4 weeks for concurrence review depending upon the complexity of the EIS. During this period, the Sponsoring Entity prepares a preliminary Notice of Availability (NOA) for the Draft EIS. The preliminary NOA is submitted to HQ/EMD, refines and finalizes the document to prepare for release of the Draft EIS to the public.

e. After completing of NASA management concurrence review, the Sponsoring Entity will provide a direct response to all reviewers making comments. When all agreed upon revisions are made and verified as acceptable by the relevant reviewer, the document can be made final with a last quick review by the HQ/EMD and the Office of the General Counsel. After completing this quick review, the document goes to the printer as the Draft EIS.

f. Five copies of the Draft EIS and a copy of the mailing list (i.e., the updated list of agencies, organizations, and individuals consulted from the scoping period) are provided to the AAMS. The AAMS, in consultation with HQ/EMD and with the concurrence of the Office of the General Counsel, signs NASA's NOA and ensures publication in the Federal Register. Appendix J provides two examples of NOA format and content (see Figures J-4 and J-5). The NOA designates a point of contact for receipt of all public review comments and establishes a date and time of day (or approximate date depending upon publication of the U.S. Environmental Protection Agency (EPA) NOA for close of the comment period. Normally, the closing time for receiving comments is the close of the business day.

g. A cover letter, prepared by the Sponsoring Entity, should accompany each EIS soliciting comments and stating the duration and closing date of the public review period if known. If the closing date of the public review period is not known, it should be linked to the approximate date of publication of the EPA's NOA. Certified Mail/Return Receipt may be advisable if the EIS is contested, with some organizations, and/or individuals strongly expressing opposition or when mailing to remote areas.

h. After the direct mailing is completed, HQ/EMD, on behalf of the AAMS, will deliver five copies of the Draft EIS to the EPA, Office of Federal Activities, and certify that copies have been mailed to the names on the mailing list. The EPA will prepare its own NOA for publication in the Federal Register. EPA NOA's are published on Friday only, and will appear in the Federal Register on the Friday of the week following the week in which NASA submits the Draft EIS to EPA. It is recommended that a notice be placed in a local newspaper of general circulation for EIS's dealing with proposed actions that may have significant localized environmental impacts.

i. The official opening date for the public review period is the date of publication of the EPA NOA or NASA's NOA Federal Register notices, whichever is later. The closing date of the review period is directly linked to the last of these Federal Register notices. NASA may, at its discretion, grant an interested party additional time for comment and review upon receipt of a valid written request for an extension. Simply not filing comments on time is not considered a valid basis for an extension. Ordinarily, the extension should not be more than 15 days, unless good cause is shown.

j. The minimum public review period is 45 calendar days from the official opening date of the public review period.

k. The EPA, Office of Federal Activities, will review and assign a rating to the EIS. EPA's rating will be forwarded in writing to NASA and published in the Federal Register. This rating is extremely important. EPA's rating system is described in section 7.12.

l. As noted in section 6.3.2.11 all underlying documents and studies cited in the EIS must be compiled into a library and made available for public review at the NASA Center or Component Facility nearest the proposed action and at NASA HQ. A copy of the EIS must be provided to each NASA Center and Component Facility and made available for public review. Normally, copies of the EIS should also be placed in local libraries when the proposal may have significant localized environmental impacts.

6.4.6 Preparing the Final EIS

6.4.6.1 Preparation of the Final EIS is addressed in CEQ regulations (40 CFR §1502.9(b) and §1503.4) and in NASA regulations.

6.4.6.2 If a preferred alternative was not identified in the Draft EIS, it must be identified in the Final EIS.

6.4.6.3 After completing the public review of the Draft EIS, all comments received should be copied, archived, handled, and evaluated in the same manner as described for scoping comments (see section 6.4.6). The principal difference is that every comment received must be responded to in writing in an appendix (or separate volume) to be included and published in the Final EIS. For those comments that necessitate a revision or addition to the Final EIS text, the response should note the location(s) where the text change occurs. Various techniques can be used in responding to comments, with one example provided in Appendix J (see Figure J-6). Where large numbers of similar comments are made, these comments can be grouped together and responded to once. Also, the comments may indicate sufficient flaws in the Draft EIS to require preparing a supplemental Draft EIS.

6.4.6.4 Potential responses to relevant comments received can include the following:

- a. Modifying the alternatives, including the proposed action,
- b. Developing and evaluating alternatives not previously given serious consideration,

c. Supplementing, improving, or modifying the analyses,

d. Correcting facts, and

e. Explaining why some or all comments do not warrant further response; citing the sources, authorities, or reasons that support this position; and if appropriate, indicating the circumstances that would cause the agency to reconsider the comment or prepare further response.

6.4.6.5 All comments received must be addressed in the appendix whether or not the comment resulted in a revision or modification in the text of the Final EIS. NASA needs to respond to comments on the EIS relevant to environmental and associated socioeconomic concerns and issues. Where a comment focuses on issues that are not environmental (environmental issues normally relate to the natural, or physical environment or interrelated socioeconomic factors) or not relevant to the proposed action, the response needs only to note that fact.

6.4.6.6 After completing the Response to Comments appendix (see section 6.3.2.15) text revisions, and suitable internal review by the Sponsoring Entity, the preliminary Final EIS will proceed through the set of reviews and NASA concurrence review identical to those described for the Draft EIS in section 6.4.5. The Sponsoring Entity submits a revised mailing list of agencies, organizations, and individuals (including all parties or persons who commented on the Draft EIS) along with five copies of the Final EIS to the AAMS. A preliminary NASA NOA is prepared by the Sponsoring Entity/local EMO and submitted to HQ/EMD. The draft NOA will be reviewed in consultation with the Office of the General Counsel and other NASA entities, as appropriate. HQ/EMD will prepare the NOA for signature, obtain the signature of the AAMS, and submit it through AAMS for publication in the Federal Register. (The Sponsoring Entity/local EMO may also publish the NOA in local or regional newspapers of general circulation, as appropriate.) The Sponsoring Entity mails copies directly to all parties on the updated mailing list; delivery is made to EPA by HQ/EMD, and EPA publishes its NOA. The NOA for the Final EIS and the transmittal letter should each note that a Record of Decision (ROD) will not be rendered for at least 30 days from the EPA or NASA NOA date in the Federal Register (whichever is later) and should invite interested parties to submit a written request for a copy of the ROD to the NASA point of contact. Figures J-7 and J-8 in Appendix J are example NOA's for Final EIS's.

6.4.6.7 Copies of the Final EIS are also made available to the public at NASA Centers and, if appropriate, Component Facilities and local libraries. Copies of all underlying documents prepared specifically for the EIS (see section 6.3.2.11), as cited in the Final EIS (the EIS library), shall be made available to the public at NASA HQ, the affected Center, or Component Facility, and other NASA locations, as appropriate.

6.4.6.8 In certain instances, NASA may receive public comments on the Final EIS. Those comments received during the 30-day waiting period must be considered and reviewed, entered into the administrative record, and taken into account in reaching the record of decision. For more detail see Appendix K, Question Q16.

6.4.7 Record of Decision

6.4.7.1 The ROD is the last step in the EIS process (see Figure 6-5). A ROD cannot be signed before 30 days have elapsed since publication of the NOA (NASA or EPA, whichever is later) for the Final EIS. As described in CEQ regulations (40 CFR §1505.2), the ROD is a public record that--

Figure 6-5. Outline of a Record of Decision
Record of Decision
National Aeronautics and Space Administration

Title of EIS

A. Background

Summarize the purpose and need for action, describing what goal NASA needs to obtain and how the proposed action will do that.

B. Introduction to the EIS

Briefly describe the process, with dates provided for the NOI and scoping period, summary of extent of public/agency participation (number of commentor), and major issues raised; date of NOA for the Draft EIS, length of comment period, number of commentors, and summary of types of major issues raised; date of NOA for the Final EIS, length of waiting period, and extent and nature of any comments received during the 30-day waiting period. Note other environmental review requirements addressed in the EIS.

Alternatives Considered

1. Briefly describe alternatives considered in detail.
 - -Alternative A. . . .
 - -
 - -Alternative G
2. Briefly describe alternatives not considered in detail.
3. Briefly describe the No-Action alternative.

Key Environmental Issues Evaluated

Briefly describe the major issues across the alternatives considered including the No-Action, and the key analytic results.

Environmental Consequences

Briefly summarize the major consequences of each alternative evaluated in detail, including No-Action.

C. Assessment of the Analysis

Describe the major findings drawn from the analysis of environmental consequences (e.g., effect on cultural resources, and jeopardy to endangered species); describe how incomplete and unavailable information was accommodated.

Choice of Alternatives

State the alternative to be chosen and why. Identify the environmentally preferred alternative; describe why.

D. Additional Information

Describe any other environmental review requirements addressed in the EIS (e.g., historic and endangered species consultations). Provide responses to comments, if any, received during the waiting period; or alternatively, these responses may be provided as an Appendix to the ROD or as a separate referenced document.

E. Mitigation

Describe mitigation measures developed to address important environmental impacts and how they will reduce or avoid impacts. This is a commitment.

Decision

Briefly state what the decision is and any key factors (e.g., technical, cost, schedule, or policy) that influenced the decision.

Signature

Printed Name/Title

Date

- a. States what the decision is,
- b. Identifies all alternatives considered in reaching the decision,
- c. Specifies the alternative(s) considered to be environmentally preferable,

- d. May discuss preferences among alternatives based upon relevant factors, including, but not limited to, technical and economic considerations and the Agency's statutory mission,
- e. Identifies and discusses all factors, including factors of national policy, that were balanced by the agency in arriving at the decision, stating how they entered into the decision,
- f. States whether all practical means to avoid or minimize environmental harm from the alternative selected have been adopted and if not, why not, and
- g. Adopts and summarizes a monitoring and enforcement program where applicable for mitigation.

6.4.7.2 A ROD normally should not exceed 6 to 10 pages in length.

a. Within NASA, the ROD is--

(1) Prepared by the Sponsoring Entity in consultation with the local EMO, HQ/EMD, Associate Administrator of the Sponsoring Enterprise, and the Office of the General Counsel,

(2) Signed by the Associate Administrator for the sponsoring Strategic Enterprise or designee,

(3) Kept on file by the Sponsoring Entity, and

b. The ROD is available to the public upon request.

6.5 Summary of the Roles and Responsibilities for the EIS Process

Table 6-1 provides a summary of the roles and responsibilities for the EIS process.

6.6 Mitigation and Monitoring

6.6.1 With the signing of the ROD, the selected action can be implemented. The NEPA process does not end here, however. It continues with mitigation and monitoring of implementation actions. Mitigation and monitoring are the responsibility of the Sponsoring Entity and must be accomplished in a timely manner. HQ/EMD may request periodic monitoring reports and must be consulted in the event additional or different mitigation must be implemented or significant new information becomes available. If a mitigation measure committed to cannot be accomplished, HQ/EMD will consult with the Sponsoring Entity/local EMO and other NASA organizations, as appropriate, to review the situation and determine the need for a written follow up plan.

Table 6-1. Typical Roles and Responsibilities for the EIS Process ¹

Function	Sponsoring Entity	Local EMO	HQ/EMD	Center Director	AAMS ²	Other AA ³	Strategic Enterprise AA
				Environmental Evaluation/Checklist			
Prepare	x	x					
Review/Concur	x	x					
				NOI			
Prepare	x	x	x				
Review	x	x	x				
Concur	x	x	x	x		x	x
Signature					x		
Publish		x			x		
				EIS (Draft, Final)			
Prepare	x	x					
Review/Concur	x	x	x	x	x	x	x
Publish	x	x					
				NOA (Draft EIS, Final EIS)			
Prepare	x	x	x				
Review/Concur	x	x	x	x		x	x
Signature					x		
Publish		x			x		
				ROD			
Prepare	x	x					
Review	x	x	x	x		x	x

Concur	x	x	x	x	x	x	x
Signature							x

¹More than one x in a row indicates a collaborative effort between specified parties.

²AAMS = Associate Administrator for Management Systems.

³Other Associate Administrators (e.g., Office of Mission and Safety Assurance, Office of the General Counsel).

6.6.2 Monitoring serves the following functions:

- a. Determines the success of mitigation measures,
 - b. Ensures adherence to the mitigation measures committed to in the EIS and the ROD,
 - c. Determines if the environmental effects of the action differ from those described in the EIS, or
 - d. Identifies new information as it becomes available concerning significant environmental issues associated with the action.
- 6.6.3 In 6.6.2c or 6.6.2d above, additional mitigation measures or NEPA analysis may be needed.

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